# PATENT COOPERATION TREA

# **PCT**

## **INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER	see Form PCT/ISA/220
YU-PWO-025	ACTION as wel	as, where applicable, item 5 below.
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/US2005/000083	04/01/2005	06/01/2004
Applicant	***	<u> </u>
YALE UNIVERSITY		
This International Search Report has beel according to Article 18. A copy is being tra	n prepared by this International Searching Aut ansmitted to the International Bureau.	hority and is transmitted to the applicant
This International Search Report consists	of a total of sheets.	
X It is also accompanied by	a copy of each prior art document cited in this	report.
Basis of the report     a. With regard to the language, the language in which it was filed, unline.	international search was carried out on the ba ess otherwise indicated under this item.	sis of the international application in the
The international this Authority (Ru		ation of the international application furnished to
b. With regard to any nucleo	otide and/or amino acid sequence disclosed	in the international application, see Box No. I.
2. Certain claims were fou	nd unsearchable (See Box II).	
3. Unity of invention is lac	king (see Box III).	
4. With regard to the title,		
X the text is approved as su	bmitted by the applicant.	
the text has been establis	hed by this Authority to read as follows:	
5. With regard to the abstract,		
X the text is approved as su	bmitted by the applicant.	
	hed, according to Rule 38.2(b), by this Authori m the date of mailing of this international sear	
6. With regard to the <b>drawings</b> ,		
	published with the abstract is Figure No1_	
X as suggested by	the applicant.	
as selected by thi	s Authority, because the applicant falled to sug	ggest a figure.
	s Authority, because this figure better characte	erizes the invention.
b. none of the figures is to b	e published with the abstract.	

### INTERNATIONAL SEARCH REPORT

International Application No PCT/US2005/000083

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A61K31/13 A61K A61K45/06

A61P25/18

A61P25/22

A61P25/24

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, EMBASE, CHEM ABS Data, SCISEARCH, CANCERLIT, PASCAL

C. DOC	JMENTS CONSIDERED TO I	BE RELEVANT
_		· · · · · · · · · · · · · · · · · · ·

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
P,X	CALDARONE B J ET AL: "High-affinity nicotinic acetylcholine receptors are required for antidepressant effects of amitriptyline on behavior and hippocampal cell proliferation" BIOLOGICAL PSYCHIATRY, ELSEVIER SCIENCE, NEW YORK, NY, US, vol. 56, no. 9, 1 November 2004 (2004-11-01), pages 657-664, XP004619798 ISSN: 0006-3223 page 659, column 2, paragraph 2 - paragraph 3 page 661 - 663, chapter "Discussion"	1-23	

X	Further documents are listed in the	continuation of box C.

Patent family members are listed in annex.

- Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- O' document referring to an oral disclosure, use, exhibition or
- document published prior to the international filing date but later than the priority date claimed
- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an Inventive step when the document is combined with one or more other such docu-ments, such combination being obvious to a person skilled in the art.

Date of mailing of the international search report

"&" document member of the same patent family

Date of the actual completion of the international search

## 13 May 2005

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

08/06/2005

Authorized officer

Albrecht, S

Form PCT/ISA/210 (second sheet) (January 2004)

# INTERNATIONAL SEARCH REPORT

International Application No PCT/US2005/000083

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	the relevant passages	nelevani io ciaim No.
· · · · · · · · · · · · · · · · · · ·	WO 99/17803 A (CARY MEDICAL CORPORATION; CARY, DOUGLAS, D) 15 April 1999 (1999-04-15)	9-12,14, 15, 17-21,24
	page 6, line 6 - line 17  page 7, line 1 - line 4  page 9, line 9 - line 23  page 12, line 3 - line 15  page 13, line 3 - line 19  page 14, line 8 - page 15, line 26	8,13,16, 22,23
	Examples	
	WO 99/07356 A (UNIVERSITY OF SOUTH FLORIDA RESEARCH FOUNDATION, INC; SANBERG, PAUL, R) 18 February 1999 (1999-02-18)	1-7
	page 18, line 15 - line 21	8-24
	POPIK PIOTR ET AL: "Nicotine and nicotinic receptor antagonists potentiate the antidepressant-like effects of imipramine and citalopram." BRITISH JOURNAL OF PHARMACOLOGY, vol. 139, no. 6, July 2003 (2003-07), pages 1196-1202, XP002328177 ISSN: 0007-1188	1-7
	page 1199, column 1, paragraph 2 - paragraph 3 page 1200, chapter "Discussion"	8-24
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International application No. PCT/US2005/000083

## INTERNATIONAL SEARCH REPORT

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X Claims Nos.: 1-8 because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 1-8 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority dld not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report Is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

cormation on patent family members

nternational Application No
PCT/US2005/000083

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9917803	Α	15-04-1999	AT	232384 T	15-02-2003
			AU	750808 B2	25-07-2002
			AU	9601198 A	27-04-1999
			BR	9812615 A	01-08-2000
			CA	2305799 A1	15-04-1999
			CN	1280505 A ,C	17-01-2001
			DE	69811378 D1	20-03-2003
			DE	69811378 T2	12-02-2004
			ΕP	1019088 A1	19-07-2000
			HK	1034662 A1	08-04-2005
			JP	2001518520 T	16-10-2001
			WO	9917803 A1	15-04-1999
			US	2004044005 A1	04-03-2004
			US	6197827 B1	06-03-2001
			US	2001014678 A1	16-08-2001
WO 9907356	Α	18-02-1999	AU	2118499 A	01-03-1999
			AU	8778498 A	01-03-1999
			CA	2300148 A1	18-02-1999
			EP	1011678 A1	28-06-2000
			JP	2003524573 T	19-08-2003
			WO	9907356 A1	18-02-1999
			WO	9907378 A1	18-02-1999
			US	6034079 A	07-03-2000
			ZA	9807182 A	15-06-1999